

What is claimed is:

1. A system for in-situ verification and calibration of flow control devices, comprising:
  - a flow verification device;
  - a first network physical layer for connecting the flow control devices to the flow verification device; and
  - a second network physical layer connected to the flow verification device;
 wherein a controller of the flow verification device is programmed to verify and, if necessary, calibrate the flow control devices over the first network physical layer based upon a single command provided through the second network physical layer.
2. A system according to claim 1, wherein the first network physical layer comprises a EtherNet/IP network physical layer.
3. A system according to claim 1, wherein the second network physical layer comprises a DeviceNet™ network physical layer.
4. A system according to claim 1, wherein the flow verifier is a rate-of-rise flow verifier.
5. A system according to claim 4, wherein the flow verifier is a GBROR™ in-situ flow verifier.
6. A system according to claim 4, wherein the flow verifier is a Tru-Flo™ in-situ flow verifier.

7. A system according to claim 1, further comprising flow control devices connected to the first network physical layer.

8. A system according to claim 7, wherein the flow control devices comprise pressure insensitive type mass flow controllers.

9. A system according to claim 1, further comprising a hub connected to the first network physical layer.

10. A system according to claim 9, wherein the hub comprises a BlueBox™ communications manager.

11. A method for in-situ verification and calibration of flow control devices, comprising:

connecting a flow verification device to the flow control devices through a first network physical layer;

connecting a second network physical layer to the flow verification device; and

programming a controller of the flow verification device to verify and, if necessary, calibrate the flow control devices over the first network physical layer based upon a single command provided through the second network physical layer.

12. A method according to claim 11, wherein the first network physical layer comprises a EtherNet/IP network physical layer.

13. A method according to claim 11, wherein the second network physical layer comprises a DeviceNet™ network physical layer.

14. A method according to claim 11, wherein the flow verifier is a rate-of-rise flow verifier.
15. A method according to claim 14, wherein the flow verifier is a GBROR™ in-situ flow verifier.
16. A method according to claim 14, wherein the flow verifier is a Tru-Flo™ in-situ flow verifier.
17. A method according to claim 11, wherein the flow control devices comprise pressure insensitive type mass flow controllers.
18. A method according to claim 11, further comprising connecting a hub to the first network physical layer.
19. A method according to claim 18, wherein the hub comprises a BlueBox™ communications manager.
20. A method according to claim 11, wherein the flow verification device is put in fluid communication with the flow control devices through a gas manifold.